



OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
Plant US1 Greenville
 Machine Id
BD-9 - Roller Nose Gearbox
 Component
Gearbox
 Fluid
SHELL OMALA 460 (12 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	TLC0001547	---	---
Sample Date	Client Info	19 Feb 2024	---	---
Machine Age	hrs Client Info	0	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		NORMAL	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184	21	---	---
Iron	ppm ASTM D5185m >200	0	---	---
Chromium	ppm ASTM D5185m >15	0	---	---
Nickel	ppm ASTM D5185m >15	<1	---	---
Titanium	ppm ASTM D5185m	0	---	---
Silver	ppm ASTM D5185m	0	---	---
Aluminum	ppm ASTM D5185m >25	<1	---	---
Lead	ppm ASTM D5185m >100	0	---	---
Copper	ppm ASTM D5185m >200	<1	---	---
Tin	ppm ASTM D5185m >25	0	---	---
Vanadium	ppm ASTM D5185m	0	---	---
Cadmium	ppm ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 6.2	7	---	---
Barium	ppm ASTM D5185m 0.0	0	---	---
Molybdenum	ppm ASTM D5185m 0	0	---	---
Manganese	ppm ASTM D5185m	<1	---	---
Magnesium	ppm ASTM D5185m 0	<1	---	---
Calcium	ppm ASTM D5185m 0.0	2	---	---
Phosphorus	ppm ASTM D5185m 290	273	---	---
Zinc	ppm ASTM D5185m 3.8	0	---	---
Sulfur	ppm ASTM D5185m 8167	15453	---	---

CONTAMINANTS

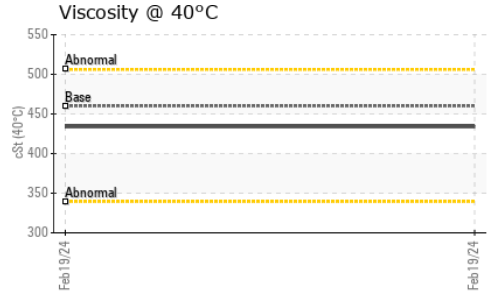
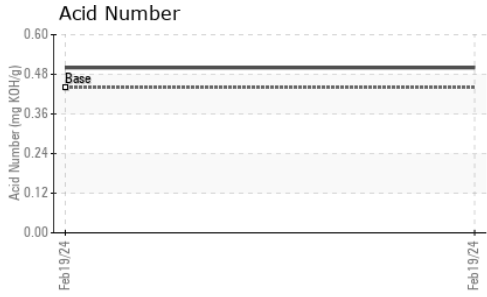
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >50	1	---	---
Sodium	ppm ASTM D5185m	<1	---	---
Potassium	ppm ASTM D5185m >20	<1	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045 0.44	0.50	---	---





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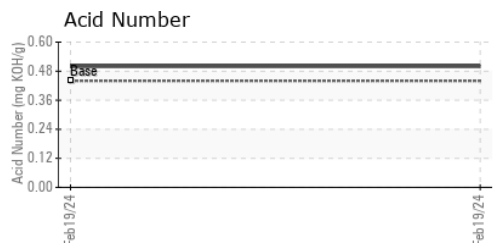
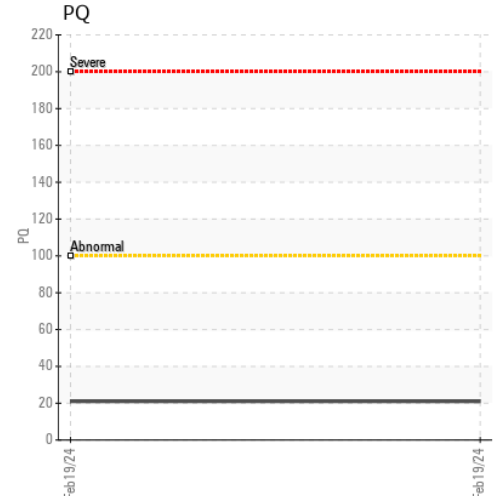
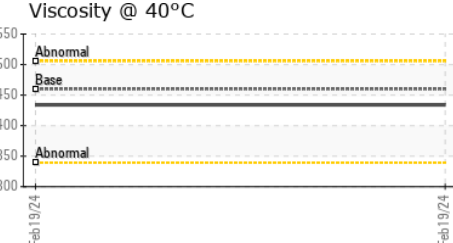
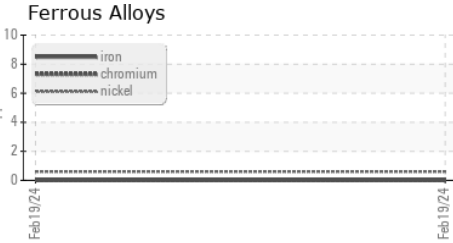
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 460	434	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image
Bottom				no image	no image

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TLC0001547 **Received** : 23 Feb 2024
Lab Number : 06098565 **Tested** : 26 Feb 2024
Unique Number : 10896795 **Diagnosed** : 26 Feb 2024 - Wes Davis
Test Package : PLANT

MICHELIN TIRE-GRENVILLE US 1 JN DOCK
 1401 ANTIOCH CHURCH ROAD
 Greenville, SC
 US 29605
 Contact: Nicolas Jackson
 nicolas.jackson@michelin.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: